

Application No.: 09/874,510

Docket No.: JCLA9803

**REMARKS****Present Status of the Application**

The Office Action rejected claims 2-18, 29, 38-41, 47-49, 54-57, 59-62 under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In addition, the Office Action rejected claims 59-62 under 35 U.S.C. 102(a) as being clearly anticipated by Kwang-Cheng Chen et al. ("Selective Hopping for Hit Avoidance," IEEE P802.15 Working Group Contribution, IEEE 802.15-01/057r2, March 10, 2001 as cited in the IDS filed June 5, 2001.)

Applicants have amended claims 2-4, 7, 10, 15-18, 22-24, 28-30, 37-38, 42, 47-50, 53, and 59 and added claim 63. In addition, Applicants respectfully traverse the rejections to claims 59-62 for at least the reasons set forth below.

**Drawing Objection**

Fig. 3 is objected to for not showing the original/mapped sequence selector as recited in claim 59. Applicant has amended claim 59 to cancel the "original/mapped sequence selector". Therefore, withdrawal of the objection is requested.

**Discussion of the claim rejection under 35 USC 112**

*The Office Action rejected claims 2-18, 29, 38-41, 47-49, 54-57, 59-62 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.*

In response to Item 8 in the Office Action, the support for "how the number of unknown events relates to the definition of the interference collision ratio" is found in paragraph [0066]:

"To obtain an **interference collision ratio** for each channel, the algorithm counts the numbers of interference events and interference-free events for each partition in a given period while it discards other events such as unknown events. Then it calculates the **interference collision ratio** for each channel as the ratio of the number of interference events to the sum of the number of interference events and the

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**number of interference-free events.”** Therefore, the rejection under USC 112 should be withdrawn.

In response to Item 9 in the Office Action, the support for “MAU” in claims 3 and 38 is found in paragraph [0019]: “...Minimal allocation unit (MAU) is defined according to the present invention as a set of signals which have the same importance (i.e., priority) to the receiving end...”.

In response to Item 10 in the Office Action, “the step of determining interference” is changed to “a step of determining interference” in claim 15, which is fully supported in the art in slide 15 under the heading of “Interference Identification (modified)” in Kwang-Cheng Chen et al. (“Selective Hopping for Hit Avoidance,” IEEE P802.15 Working Group Contribution, IEEE 802.15-01/057r2, March 10, 2001 as cited in the IDS filed June 5, 2001.

In response to Item 11 in the Office Action, claim 16 is amended so that the recited steps are no longer referred to claim 10 and that claim 10 does not include step (15.2) as shown in claim 16, line 1. In addition, a new claim 63 is added to include a portion of the original claim 16, thereby giving a more consistent coverage for limitations based upon claim 10.

In response to Item 12 in the Office Action, the conflicting definitions for the “interference collision ratio” on lines 6-8 in claim 16 and in step(2.1) in claim 2 are resolved by defining “interference collision ratio” as “first interference collision ratio” in step(2.1) in claim 2, “second interference collision ratio” in claim 16, “third interference collision ratio” in claim 29, and “fourth interference collision ratio” in claim 37.

In response to Item 13 in the Office Action, “said plurality of selected channels” on line 10 in claim 17 is amended to “said selected channel” to be consistent with “selecting at least one channel” on line 5.

In response to Item 14 in the Office Action, “a channel” is found on line 9 in claim 17; therefore, “said channel” is clearly referred to the definition set forth in claim 17 for “a channel” based upon antecedence, thus there should be no confusion as to the meaning for “said channel”.

In response to Item 15 in the Office Action, the limitation “said synchronous

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traffic management reservation slot time slot status” is amended to “a synchronous traffic management reservation slot time slot status” in claim 30 to provide antecedence for the same limitation in claim 54. Furthermore, the aforementioned limitation is fully supported implicitly in paragraph [0089]: **“Synchronous Traffic Management. Synchronous traffic is defined as link-based and reservation-based. Synchronous traffic manager 711 first receives a link request 701, and channel interference measurement and channel partitioning information 720 to form a link having predetermined traffic parameters. Upon acceptance of the link request 701, synchronous traffic manager 711 reserves a series of time slots for link request 701.. Traffic manager 711 replies to the request, utilizing the following algorithm in one embodiment of the present invention.”**

In response to Item 16 in the Office Action, “the time slot” in claim 33 has antecedent basis found in claim 30 in “and a **plurality of time slots**” on line 3. The “said good channels” in line 3 in claim 33 has antecedent basis found in claim 29 in line 4: “a number of good channels”.

In response to Item 17 in the Office Action, “the time slot” in claim 34 has antecedent basis found in claim 30 in “and a **plurality of time slots**” on line 3. The “said good channels” in lines 3 in claim 34 has antecedent basis found in claim 29 in line 4: “a number of good channels”.

In response to Item 18 in the Office Action, claim 38 is as follows:”. The selective hopping system of claim 36, wherein said partition distributing means further comprises: **dividing means for dividing said distribution into a plurality of superframes; then dividing each of said plurality of superframes into a plurality of frames; and dividing each of said plurality of frames into a plurality of MAUs, each of said plurality of frames including a predetermined number of said plurality of MAUs, and said plurality of superframes including a predetermined number of said plurality of frames; designating a predetermined number of said plurality of MAUs to be distributed into each of said partitions; determining means, coupled to said dividing means, for determining the number of MAUs for each of said partitions; and distributing means for coupling said determining means for distributing said MAUs of each of said partitions into a selected plurality of said frames.”** The aforementioned amended claim 38 clearly

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shows that only the “determining means” is used for “determining the number of MAUS” and the “coupled to said diving means” is enclosed in a secondary phrase using commas.

In response to Item 19 in the Office Action, a “the” is inserted before “error” as was suggested by the Examiner in the Office Action.

In response to Item 20 in the Office Action, the “interference collision ratio” is amended to be “second interference collision ratio” in claim 48 to differentiate from the “fourth interference collision ratio” in claim 37.

In response to Item 21 in the Office Action, the asynchronous traffic management in claim 55 is fully supported in all of paragraph [0093] “Asynchronous Traffic Management” and the synchronous traffic management in claim 52, line 2 is fully supported is all of paragraph [0089] “Synchronous Traffic Management”. According to the dictionary definition, asynchronous means “not synchronous”; therefore, it is consistent that asynchronous and synchronous are contradicting with one another.

In response to Item 22 in the Office Action, “the time slot” in claim 57 has antecedent basis found in claim 30 in “and a plurality of time slots” on line 3. The “said good channels” in line 3 in claim 57 has antecedent basis found in claim 29 in line 4: “a number of good channels”.

In response to Item 23 in the Office Action, “partition sequence” is changed to “a partition sequence” in line 8 of claim 59; therefore, there is no longer confusion with the subsequent “a partition sequence” in claim 59 on line 11. Furthermore, “a generated hopping sequence” is defined on line 13 in claim 59 instead of “a hopping sequence” on line 23; therefore, there is no unclarity as suggested by the Examiner.

Based on the aforementioned traversing responses, claims 2-18, 29, 38-41, 47-49, 54-57, 59-62 should be allowed.

**Discussion of the claim rejection under 35 USC 102**

*The Office Action rejected claims 59-62 under 35 U.S.C. 102(a) as being clearly anticipated by Kwang-Cheng Chen et al. (“Selective Hopping for Hit Avoidance,” IEEE P802.15 Working Group Contribution, IEEE 802.15-01/057r2, March 10, 2001 as cited in the IDS filed June 5, 2001, “Chen” hereinafter)*

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Applicants respectfully traverse the rejection of claim 59 under 35 U.S.C. 102(a). The features of “outputting a continuous sinusoidal signal” in line 29 **and** of “a mixed signal is converted to a lower and fixed intermediate frequency signal” in lines 34-35 in claim 59 are not suggested, taught, or disclosed in Chen; therefore, Chen does not anticipate claim 59. The “outputting a continuous sinusoidal signal” is fully supported in paragraph [0054]: “In operation, a frequency synthesizer 311 outputs a **continuous sinusoidal signal** with a frequency being determined by the current channel number from the hopping sequence.” Furthermore, “a mixed signal is converted to a lower and fixed intermediate frequency signal” is also fully supported in paragraph [0054]: “...In a mixer 310, an RF input signal 304 is **mixed with the signal from the frequency synthesizer 311, and the signal in the desired channel is converted to a lower and fixed intermediate frequency (IF)...**” As a result, claim 59 and subsequently the dependent claims 60-62 which are dependent upon claim 59 patentably distinguish over Chen. And claims 59-62 should be allowed.

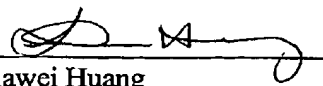
### CONCLUSION

For at least the foregoing reasons, it is believed that all the pending claims 1-63 of the present application patently define over the prior art and are in proper condition for allowance. If the Examiner believes that a telephone conference would expedite the examination of the above-identified patent application, the Examiner is invited to call the undersigned.

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